

## RECENT LITERATURE.

Stejneger's 'The Birds of the Genus *Cinclus* and their Geographical Distribution.'—In this paper of ten pages<sup>1</sup> Dr. Stejneger considers the affinities, probable place of origin, and the geographical distributions of the Dippers—an oscinine type modified to assume the rôle of an aquatic bird, and hence presenting puzzling relationships. "Even at this late day there is no absolute certainty as to their most intimate relationships. . . . The majority of ornithologists of to-day divide upon the question whether the dipper is more closely allied to the thrushes (*Turdidæ* in the wider sense) or to the wrens." Contrary to his former belief, the author is now "convinced that *Cinclus* has sprung from the same root" as *Sialia* and *Saxicola*, and "that its many peculiarities are mere adaptations to its aquatic habits." Furthermore, instead of assigning to it a neotropical origin, as he did in 1885, he now "has no hesitation in affirming that *Cinclus* is of palæarctic origin"; or, more definitely, that it originated in "that enormous and ancient plateau and mountain region north of India and east of 90° east longitude. . . . From this center the dippers radiated wherever high enough mountain ranges, or otherwise boreal conditions, permitted them to push forward their colonies." As they are mountain and torrent loving birds, their distribution is peculiar; they inhabit the high mountain systems of the Palæarctic subregion from the Atlantic to the Pacific, but in the New World "are confined to the boreal zone of the long Cordilleran chain from Alaska to the Argentine Republic," extending in South America eastward to eastern Colombia, but in North America not ranging east of the Rocky Mountain system.

He would place the origin and beginning of the dispersal of the group "not later than the dawn of the Tertiary"; and assumes that they reached North America from Asia by the land bridge believed by geologists to have existed somewhere about Bering Sea, at about the time of the uplift of the mountain ranges that parallel the Pacific coast from Alaska to Patagonia. Although a wide sea is supposed to have existed across what is now Panama during the early Tertiary, a land bridge joined North and South America early enough for the dipper to have "probably gained a foothold in the Andes before the advent of the Pliocene." "The dipper which reached farthest south (*Cinclus schulzi*) seems to have become most modified, for it has acquired a light rufous throat, a character entirely unique in the genus."

The place of origin and relative antiquity of the several leading types of the group is further considered, and also the influence upon them of isola-

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<sup>1</sup>The Birds of the Genus *Cinclus* and their Geographical Distribution. By Leonhard Stejneger. Smith. Misc. Coll. (Quart. Issue), Vol. XLVII, pp. 421-430, April 5, 1905.

tion and other conditions. Some thirty or more forms — species and races — are now recognized, and to facilitate their discussion a synopsis of them, in the form of a key, with their distribution, is given in a footnote. The group, with its peculiar geographical distribution and its several rather distinct types of coloration offers a tempting subject for speculation, which our author has utilized in a most interesting and fairly conservative way, emphasizing at the same time the great dearth of material at present available for study in relation to many of the forms. As Dr. Stejneger says: "All these questions are of the utmost importance and interest, but with the present utterly inadequate material at the disposition of the ornithologist, it is scarcely possible to more than lift a corner of the veil. Until the true inter-relations of these birds have been ascertained; until the distribution of the forms thus established has been actually mapped in considerable detail; and until the results thus gained have been verified by correlation with the physiographic features of the country in the field by competent observers; until then we shall have nothing but guesses. . . I need only mention that no less than nine different forms of palæartic dippers have been described during the last two years, the scant material upon which these are mostly founded being distributed among six different museums." Nor is the case of the dippers an isolated instance; it is merely a forcible illustration of the condition of such problems in general, not only in the palæartic field, but over the greater part of the world's surface.— J. A. A.

**Scott 'On the Probable Origin of Certain Birds.'**<sup>1</sup>— The birds here referred to, nine in number, are all included in the 'Hypothetical List' of the A. O. U. Check-List, and are the following: *Tringa cooperi* Baird, *Acanthis brewsteri* Ridgw., *Emberiza townsendii* Aud., *Helminthophaga lawrencei* Herriek, *H. leucobronchialis* Brewster, *Sylvia carbonata* Aud., *Sylvia montana* Wilson, *Muscicapa minuta* Wilson. Two of them, *H. lawrencei* and *H. leucobronchialis*, are discussed at length, the other seven being disposed of in few words, his conclusion respecting them being that "the law of parsimony [whatever that may be] compels me to consider these forms as mutations (which were not perpetuated) from *species still existing* which I have, in most cases, been able to indicate." Of four of them the unique type specimen is still extant; the other three are known only from the works of Wilson and Audubon.

In accounting for the origin of all of these nine forms he resorts to de Vries's hypothesis of mutants. In considering the two forms of *Helminthophila*—*lawrencei* and *leucobronchialis*— he emphatically rejects the current hypothesis of hybridity to account for their origin, for, he says, "though hybrids do occur among wild birds, they can be considered at

<sup>1</sup>On the probable Origin of Certain Birds. By William E. D. Scott. Science, N. S., Vol. XXII, pp. 271-282, Sept. 1, 1905.